

### REMARKS

Claims 46-49, 51-59, 61-87 are pending. Claims 46-49, 51-59, and 61-65 are drawn to the elected subject matter. Claims 66-87 were withdrawn in the Office Action. In view of the comments below, Applicants request reconsideration of the Final Restriction Requirement, particularly in view of the present discovery that culturing dendritic cells under certain conditions, which include daily replacement of the liquid media, results in cells that have improved (or enhanced) biological function relative to the cells prior to culturing. Furthermore, this enhancement of biological function is greater than that obtained with static culturing techniques.

The amendments to Claims 46 and 56 are supported by Claim 50 and 60; page 17, lines 16-17; and page 5, lines 11-15. Support for the amendment to Claim 55 is found on page 8, line

4. No new matter is added

### REJECTIONS UNDER 35 U.S.C. § 102

The three prior art references do not anticipate the present claims because the prior art does not describe culturing lineage committed dendritic cells exhibiting enhanced biological function including replacement of the liquid culture medium at a rate of at least 25% daily replacement continuously for more than one day.

Claims 46-47, 49, 55-57, 59 and 64 were rejected over Romani et al. Claims 46 and 56 have been amended to incorporate the replacement of Claims 50 and 60, respectively. As Claims 50 and 60 claims were not rejected, Applicants request that the rejection under 35 U.S.C. § 102(b) over Romani et al be withdrawn.

Furthermore, the present claims would not have been obvious in view of Romani et al because Romani et al do not suggest altering the culture conditions to include a daily

replacement as in the present claims.

Romani et al describe generating dendritic cells (“DC”) from proliferating progenitors in blood (see page 85, col. 1, paragraph 1). Examples of sources of those progenitors include cord blood mononuclear cells, blood of cancer patients, and blood from healthy adults (page 84, second column).

After plating the cells Romani et al the cells were “fed every other day” (page 85, col. 1 and page 97, col. 1). There is no description for altering these culturing conditions.

Claims 46-47, 55, 57 and 64 were rejected over Siena et al. Claims 46 and 56 have been amended to incorporate the replacement of Claims 50 and 60, respectively. As Claims 50 and 60 claims were not rejected, Applicants request that the rejection under 35 U.S.C. § 102(b) over Siena et al be withdrawn.

Furthermore, the present claims would not have been obvious in view of Siena et al because Siena et al do not suggest altering the culture conditions to include a daily replacement as in the present claims.

Siena et al describe generating dendritic cells from CD34+ cells (page 1464, col. 1, last paragraph). After plating, “the culture medium was replaced every 4-5 days . . .” (page 1464, col. 2, lines 2-5). There is no description for altering these culturing conditions.

Claims 46-47, 49, 53-57, 59, and 63-65 were rejected over Steinman et al. Claims 46 and 56 have been amended to incorporate the replacement of Claims 50 and 60, respectively. As Claims 50 and 60 claims were not rejected, Applicants request that the rejection under 35 U.S.C. § 102(e) over Steinman et al be withdrawn.

Furthermore, the present claims would not have been obvious in view of Steinman et al because Steinman et al do not suggest altering the culture conditions to include a daily replacement as in the present claims.

Steinman et al describe producing mouse dendritic cells from blood precursors (col. 26). After plating, Steinman et al describe “The cultures were fed with GM-CSF (30 u/ml) at day 6-7 and **then every 3 days** by aspirating 0.5-0.75 ml of the medium and adding back an equal volume of fresh medium with GM-CSF” (col. 26, lines 54-57, emphasis added ). There is no description for altering these culturing conditions.

#### REJECTIONS UNDER 35 U.S.C. § 112

The rejections under 35 U.S.C. § 112, first and second paragraphs have been addressed by amendment.


#### INFORMATION DISCLOSURE STATEMENT

Applicants request a returned signed copy of the PTO 1449 Forms filed as an Information Disclosure Statement on November 25, 2002. A copy of the date-stamped filing receipt as proof of the filing is attached. For the Examiner’s convenience, a copies of the PTO 1449 Forms are attached hereto.

Allowance of this application is requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.



Jean-Paul Lavalleye, Ph.D.  
Registration No. 31,451

Daniel J. Pereira, Ph.D.  
Registration No. 45,518



**22850**

(703) 413-3000

Fax #: (703) 413-2220